DOCUMENT RESUME

ED 183 250 PS 011 219

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TITLE Developmental Structuralist Approach to the Classification of Adaptive and Pathologic Personality Organizations: Infancy and Early Childhood.
PUB DATE 79
NOTE 32p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Adjustment (to Environment); Attachment Behavior; Child Development; *Developmental Stages; *Early Childhood; Environmental Influences; *Infancy; Intervention; Maturation; Models; *Parent Child Relationship; Personality Development; *Psychopathology
IDENTIFIERS Behavioral Organization; *Developmental Structuralist Approach

ABSTRACT

This paper applies a developmental structuralist approach to the classification of adaptive and pathologic personality organizations and behavior in infancy and early childhood, and it discusses implications of this approach for preventive intervention. In general, as development proceeds, the structural capacity of the developing infant and child enlarges, and higher level integrating and synthesizing capacities emerge. The major assumption of a developmental structuralist approach is that the infant is capable of organizing experience at birth and that as development proceeds this capacity becomes more adaptive in regard to organizing phase-appropriate experience of a progressively greater range, stability, resilience, and uniqueness. A detailed developmental structuralist classification scheme for infancy and early childhood may be described according to stage-specific tasks. Achieving homeostasis, forming a human attachment, somato-psychological differentiation, behavioral organization, initiative, and internalization, and forming mental representations are the stages and capacities or tasks in the developmental structural model proposed. Illustrating the usefulness of this approach for understanding psychopathology and adaptation in infancy and early childhood, the stages of (1) somato-psychological differentiation and (2) behavioral organization, initiative and internalization are discussed in terms of adaptive patterns, defects or disorders, adaptive and disordered environments and prevention and treatment. (Author/RH)

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DEVELOPMENTAL STRUCTURALIST APPROACH TO THE CLASSIFICATION OF ADAPTIVE AND PATHOLOGIC PERSONALITY ORGANIZATIONS: INFANCY AND EARLY CHILDHOOD

BY

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Submitted to: the American Journal of Psychiatry

Developmental Structuralist Approach to the Classification of Adaptive and Pathologic Personality Organizations: Infancy and Early Childhood

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This paper applies a developmental structuralist approach (Greenspan 1979)[1] to the classification of adaptive and pathologic personality organizations and behavior in infancy and early childhood, and discusses implications of this approach for preventive intervention.

Traditional approaches to classification of psychopathology are based on either the clustering of certain symptoms and/or an understanding of the etiological basis of the disorder. However, the etiological and symptom complex approaches to classification and diagnosis, while necessary, are in themselves insufficient. The same etiological factor can result in different behavioral outcomes or symptoms. As an example, a reaction to a given allergen or stress may differ, depending on individual differences in response proclivity (e.g., one individual may become dizzy or develop peripheral neospathy, another may develop hives, and yet another a gastro-intestinal disorder). At the same time a number of different etiological agents may be associated in the same set of symptoms. For example, a given allergen, infectious agent, or a series of stresses can all produce a similar gastro-intestinal disturbance.

In many fields of medicine we have learned enough about pathologic and adaptive pathways to understand the interventing processes between etiological factors and response patterns. For example, an understanding of allergic

mechanisms, regardless of different symptom complexes, suggests that an individual may be having a common allergic reaction. Or, an individual may be experiencing a different set of bodily processes although the final outcome, i.e., a gastro-intestinal disturbance, is similar.

With regard to our approach to adaptive and pathologic personality configurations we are still at the level of symptom complex and etiological approaches and do not yet have a complete framework for delineating the pathogenic and adaptive processes. There is a need for another dimension to our classification which would focus on the organism's individual way of processing, integrating, and differentiating experience, that is, the pathways that lead to certain behavioral outcomes. This "final common pathway" connects the influence of multiple etiological factors with varying outcomes and suggest something fundamental about the organism's manner of organizing its experience of its world.

A few examples from early infancy will help illustrate this point. One of the infant's first tasks is to be able to adapt to the external environment in the context of maintaining a state of internal regulation (e.g., basic neurophysiological processes, including regulating state and basic rhythms such as sleep/wake, hunger cycles, etc.) (Sander [2] 1962; Brazelton et al. [3] 1974). This capacity may be viewed as a stage specific structural capacity to achieve homeostasis (Greenspan [1] 1979; Greenspan, Lourie and Nover [4] 1979). Some infants, according to individual constitutional differences and environmental influences, can remain alert and engage the world in a multisensory affective manner, in the context of internal regulation and regular cyclic patterns. They are able to console themselves or are easily consoled. Other infants, however, can only remain regulated or calm by shutting out the external world (e.g., by closing their eyes and sleeping) or unable to regulate their internal processes, they remain hyperexcitable and irritable, with only the slightest engagement with the external world.

Another illustration pertains to the infants' capacity for forming a human attachment as one of their first and most important developmental tasks. Between 2 and 4 months, infants clearly begin to demonstrate a unique investment in the animate as opposed to the inanimate world. There evolves a special interest in those caretakers who are relatively permanent in their environment e.g., as evidenced by the social smile (Spitz et al. 1970; Emde et al. 1976).[5][6] In addition, infants show individual differences in communication patterns and affect expressed and experienced in their special dyadic attachments (Stern 1974a[7], 1974b[8]; Brazelton et al. 1974[3]). This capacity for attachment may also be viewed as a stage specific structural achievement and considered in terms of a number of parameters including the range, stability, resilience and personal uniqueness of the experience evidenced and tolerated. Is it a rich, warm, loving dyad, where the infant and the mother both experience a range of affects from deep, rich pleasure to assertiveness and protest, or is it a shallow, mechanical attachment, devoid of affect, behavioral richness, and flexibility? What is the range of sensory modalities used by the infant and the mother—are they visually, audibly, vocally, and tactilely connected, or are only one or two of these modalities used: What is the range of motoric involvement? Do these experiential organizations exist only intermittently or are they the usual mode of involvement? Can the dyad re-engage after a disruption? Are unique personal characteristics beginning to express themselves? (e.g., Are there special games or preferred affects and sensorimotor patterns that characterize this relationship?) The reader can imagine further similar examples using the basic parameters of (1) range of age and phase appropriate experiences, (2) stability of experiential organization, (3) resilience to stress, and (4) unique individual characteristics, to determine the spectrum from adaptability to pathology. In general, as

development proceeds the structural capacity of the developing infant and child also enlarges and we observe the emergence of higher level integrating and synthesizing capacities (Piaget (9) 1962; Greenspan (1) 1979).

The degree to which an individual experiences the full range of phase and age appropriate experience in stable, stress-resilient personal configurations may be used as an indicator of the involvement in a particular phase of development and readiness for progressing into those experiential realms which emerge from these earlier ones and constitute part of the next developmental stage. In this sense, the most optimally adaptive structure at each developmental phase facilitates further development. For example, an infant who begins warding off affectionate, intimate behavior is unlikely, unless there is a reversal of that trend, to learn those skills that involve personal intimacy. On the other hand, the baby who organizes experiences of physical closeness and interpersonal affection is likely to have an opportunity to learn the later forms of such intimate exchanges. This is not to suggest that "catch up" learning does not occur—it does. Such learning, however, may have a different developmental sequence and final configuration.

The developmental structuralist approach is also consistent with and partially derived from current empirical research on early development. The major assumption of a developmental structuralist approach is that the infant is capable of organizing experience at birth and that this capacity becomes more adaptive in terms of organizing phase appropriate experience of a progressively greater range, stability, resilience, and uniqueness as development proceeds.

That the infant is capable of organizing experience even at birth and shortly thereafter in an adaptive fashion is now well documented (Lipsitt (10) 1966; Gewirtz (11) 1965, 1969; Klaus and Kennell (12) 1976; Meltzoff and Moore (13) 1977; Emde, Gaensbauer and Harmon (14) 1976; Sander (6) (2) 1962). It is interesting to note

that this empirically documented view of the infant is in a general sense consistent with Freud's early hypotheses (15) (1911) and Hartmann's postulation (15) (1939) of an early undifferentiated organizational matrix. That the organization of experience broadens during the early months of life to reflect increases in the capacity to experience and tolerate a range of stimuli in stable and personal configurations is also consistent with recent empirical data (Emde et al. (6) 1976; Sroufe and Matas (17) 1974; Escalona (18) 1968; Stern (7) 1974a, 1974b; (8) Sander (2) 1962; Brazelton, Koslowski and Main (3) 1974; Murphy and Moriarty (19) 1976) In addition there is evidence that these capacities to organize experience reflect individual differences in infants and their caretakers which are also present early in life (Thomas, Chess and Birch (20) 1968; Wolff (21) 1966; Parmelee (22) 1972).

A detailed developmental structural classification scheme for infancy and early childhood may be described according to stage specific tasks (Greenspan (1) 197 Greenspan, Lourie and Nover (4) 1979). Fn In summary, the first task of the infant can be seen to be the achievement of homeostasis, as described earlier. Once the infant has achieved some capacity for regulation in the context of engaging the world, with increasing CNS maturation (between 2 and 4 months), he becomes more attuned to social and interpersonal interaction and is more able to respond to the external environment and to form a special relationship with the significant primary caregivers. Thus, also as described earlier, a second very closely related capacity can be formulated--forming a human attachment. If an affective and relatively pleasurable attachment is formed (an investment in the human,

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Fn/It should be emphasized that the capacities described by the stage specific tasks are all present in some rudimentary form very early in infancy. The sequen to be presented suggests not when these capacities begin but when they become relatively prominent in organizing behavior and furthering development.

animate world), then with growing maturational abilities we observe the infant developing complex patterns of communication in the context of this primary human relationship. Parallel with development in the infant's relationship to the inanimate world where basic schemes of causality are being developed (means-ends relationships--Piaget (9) 1962), the infant becomes capable of complicated human communications (Stern (7) 1974a; Brazelton et al. (3) 1974; Tennes et al. (23) 1972; Charlesworth (24) 1969).

Means/ends (causal) relationships are established between the infant and the primary caregiver evidenced in the infant's growing ability to discriminate significant primary caregivers from others as well as to differentiate his own actions from their consequences affectively, somatically, behaviorally, and interpersonally. A process of differentiation begins to occur along a number of developmental lines (e.g., with sensorimotor integration, affects, relationships). A third set of capacities and tasks may therefore be termed somato-psychological differentiation. While schemes of causality are being established in relationship to the interpersonal world, it is not at all clear that these schemes exist at a mental representational or symbolic level. Rather, they appear to exist at a somatic level (Greenspan (1) 1979), some perhaps even prenatally determined (Lourie (3 197

With appropriate reading of cues and systematic differential responses the infant or toddler's behaviorial repertoire becomes more complicated and communications take on more organized, meaningful configurations. By 12 months the infant, for example, is able to begin connecting up behavioral units into larger organizations, as he evidences complex emotional responses such as affiliation, wariness, and fear (Bowlby (25) 1969; Ainsworth et al (26) 1974; Sroufe & Waters (27) 1977). As the to moves further into the second year of life in the context of the practicing subpha of the development of individuation (Mahler et al. (28) 1975), there is a capacity for forming original behavioral schemes (Piaget (9) 1962), and increased imitative activity and intentionality.

A type of learning through imitation which is evidenced in earlier development now seems to take a more dominant role. Therefore, a fourth stage and set of capacities may be delineated as behavioral organization, initiative, and internalization.

As the toddler moves into the end of the second year with further maturation of the central nervous system, we notice the capacity to form and organize mental representations. What were perhaps internal sensations now become organized in a mental representational form proper (e.g., Piaget (9) 1962; Bell (29) 1970; Gouin Decarie (30) 1965). While this capacity is initially fragile (i.e., between 16 and 24 months), it soon appears to become a dominant mode in organizing the child's behavior, and a fifth stage and capacity or task can be documented, forming mental representations.

At a representational level the child again develops his capacities for elaboration, integration and differentiation. Just as earlier, causal schemes were developed at a somatic-behavioral level, now causal schemes are developed at a symbolic-representational level. The child begins to elaborate and differentiate those feelings, thoughts and events that emanate from himself and those that emanate from others. He begins to differentiate what he experiences and does from their impact on the world. This gradually forms the basis for the differentiation of "self" representations and those representations which embody the external world, animate and inanimate.

Gradually the capacity for differentiating internal representations becomes consolidated, e.g., object constancy (Mahler (28) 1975). Subsequently, representational capacity becomes reinforced, with the ability for the child to develop derivative representational systems that are tied to the original representation and transform them in accord with adaptive and defensive goals. This permits greater flexibility in dealing with experiences such as perceptions, feelings, thoughts, ideals, and values. Substages for these capacities include

representational differentiation, the consolidation of representational capacity, and the capacity for forming limited derivative representational systems and multiple derivative representational systems (structural learning) (Greenspan 1979[1])

To illustrate the usefulness of this approach for understanding psychopathology and adaptation in infancy and early childhood, two of these stages will be presented in depth, followed by a schematic outline of the stages of infancy and early childhood.

The Stage of Somato-Psychological Differentiation

Once a secure attachment is achieved as evidenced through affective interchange, meeting of needs, mutual cooing, and other reciprocal responses between the infant and the primary caregivers, we observe a process of differentiation in the affective, behavioral and somatic realms of experience.

This differentiation is termed somato-psychological, to suggest the yet not clearly demarcated difference between the somato-behavioral level and what later will become a clear, organized psychological representational (symbolic) level. The infant illustrates his capacity for interpersonal differentiation as he distinguishes the primary caregiver from other (i.e., the well-known 8-month anxiety [Spitz et al. 1970[5]]). The infant also differentiates internal somatic states (e.g., hunger for food, hunger for affection, and hunger for being held) as evidenced by differential communications.

Contingent responses by the caretakers, that is, actions that are selective to cues from the infant, help him to consolidate initial causal schemes and distinguish means from ends in interpersonal relationships. For example, when the infant smiles and the mother smiles as a consequence, the infant in some rudimentary way relates his smile to that of his mother's. It is a well annotated phenomenon that the mother who appreciates her baby's smile has a smiling baby. Similarly, when the infant reaches his hand out and mother counters, either by reaching out her hand or some other affective or motoric response, or if the

infant evidences behavior consistent with being physically hungry and is fed, or shows emotional hunger and is held, he begins to relate his means to these ends. It should be clear that means/ends relationships also begin to develop at subtle levels in the emotional sphere. Patterns relying on subtle empathetic interactions most likely undergo their own differentiation.

Various lines of development may undergo differentiation at different rates, depending on maturational factors (that is, the infant's individual developmental timetable) and the environment's selective reading and systematic selective responsiveness to the infant's cues to optimize the emerging readiness for a new developmental step. It is therefore possible that one infant will undergo differentiation in an area of gross motor responses and not at subtle affective and empathetic emotional levels. For example, if mother responds in a mechanical, remote manner and/or projects some of her own dependent feelings onto her baby, the infant may not learn to appreciate causal relationships between people at the level of compassionate and intimate feelings even though causality seems to be developing in terms of the inanimate world and impersonal, human world. We have observed infants, for example, who are differentiated in the assertive impersonal domain of human relationships, but are relatively undifferentiated in the intimate, pleasurable domain.

As means/ends relationships in various sectors of intra- and interpersonal relating becomes established one gradually observes the shift from magical causality (e.g., infant pulls a string to ring a bell which is no longer there), to the consolidation of simple causal links--pulling only when there is a bell, smiling only when a significant caretaker is in view--to more complicated means/ends differentiation (e.g., the use of substitutes, detours, and intermediary devices). In the emotional realm, instead of just crying out and expecting the caretaker to be aware of its hunger for human warmth and closeness or food, the infant-toddler learns to interpose certain noises, gestures, and/or

affects that increase the likelihood that it will get picked up, cuddled, or fed. For example, a certain smile and posture may be evidenced in anticipation of being picked up. We see a gradual differentiation which serves as the foundation of increased flexibility and coping.

Adaptive Patterns of Somato-Psychological Differentiation

In terms of the developmental structural model outlined earlier, the most adaptive infant at this time is capable of a wide range of differentiated experience in stable, resilient, unique organization. For example, differentiated experience and interactions occur through multiple sensory modalities such as visual, auditory, tactile, olfactory, proprioceptive, in the context of a coordinated motor system and integrated sensory motor patterns. Affective experience includes a range of affects from pleasure to assertive protest, including subtle states in between. These multisensory, affectively rich interactions are organized into stable contingent or reciprocal resilient, highly personal patterns which give a sense of cohesion to the evolving structural capacity of the infant. For example, if there is a compromise in contingent behavior in terms of the range of affect or in the contingent capacity itself after a brief separation from mother, the infant is able to return to a rich, affective, differentiated reciprocal interaction pattern once security is reestablished. In contrast there are infants who use only one or two sensory modalities and are limited in their range of affect, or with the slightest stress, lose their capacity for reciprocal interaction and regress into a withdrawn or hyper-irritable panic state from which it is almost impossible to comfort or re-engage them, and if re-engaged, interactions are at a noncontingent level.

Defects in Somato-Psychological Differentiation

There are degrees of defects in somato-psychological differentiation. An extreme defect is illustrated by the infant who does not develop differential consequences to either behavioral, emotional, or inanimate environmental events. There is no reciprocal or contingent behavior. (A basic sense of causality at the foundation reality testing may be compromised.) A less severe disorder is present when only one aspect of somato-psychological differentiation is compromised. For example, if the primary caregiver ignores or withdraws from the infant's assertive and/or protest behaviors, a sense of causality and differentiation around this particular spectrum of affect and behavior may not become consolidated. When frustrated, such an infant may evidence either disorganized aggressive responses (e.g., biting, flailing) or apathy, passivity, and withdrawal rather than assertive, organized protest behavior.

A variety of symptoms may be seen in relationship to disorder of somato-psychological differentiation, including sensori-motor developmental delays, apathy, intense chronic fear, clinging, lacking of exploratiVeness and curiosity, lack of, or nonresponsive, emotional reactions to significant caregivers, specific maladaptive patterns of relatedness such as biting, chronic crying and irritability, and difficulties with sleeping and eating.

Because a number of somatic, emotional and behavioral symptoms may emerge as a consequence of more fundamental disturbance in differentiation, a few illustrations of how this process occurs may prove useful. If emerging capacities for contingent interactions in sensorimotor and affective areas are not systematically responded to, developmental progress (differentiation) in the most vulnerable areas may slow down or cease simply because there is no opportunity for repetitive action sequences or practice (i.e., there is a lack of the repetitive minimal stimulus nutriment necessary to consolidate these capacities), and we may observe cognitive or interpersonal delays. Secondary apathy, withdrawal, disorganization and/or other regressions may follow.

Or an infant who gets no response or an inappropriate response (e.g., he is misread) to his "reaching out" cues, may mobilize "negativistic" responses to achieve a reaction from the environment. Instead of reaching out, this infant may cry and refuse to respond. This may elicit a quick response from the environment and chronic patterns of negativism may be established. If this negativism expands, development in important motoric and sensory areas may be compromised as opportunities for practicing action patterns will be missed. Even such basic functions as eating may be caught up in a pattern of negativism. The pleasurable component of negativism as an experiment in individuation becomes outweighed by its assuming an aggressive emphasis.

If, secondary to the lack of forming differentiated patterns, there are compromises in the infant-primary caregiver relationship (e.g., the infant becomes frustrated and irritable as his new capacities for contingent interactions are ignored or misread), the basic comforting and soothing function which supports the sense of security and made it possible for the infant to achieve homeostasis and attachment, may also begin faltering. We may then see compromises in attachment and homeostatic patterns (e.g., physiologic disorders, interferences in already achieved rhythms and cycles such as sleep, hunger, etc.).

To illustrate further the use of the concept of a somato-psychological differentiation, we can briefly consider its implication for understanding adaptive environments, disordered environments and approaches to prevention and intervention.

Adaptive Environments for Somato-Psychological Differentiation

An adaptive environment for this stage of development is one that in the context of a secure attachment and supportive regulatory relationship (homeostasis) provides a clear reading of the infant's communications at the behavioral, somatic, and affective levels with contingent or reciprocal responses. Some environments, depending on the mothers, fathers, siblings or other care-

givers, may be able to "tune in" to the baby in certain dimensions, such as around pleasure and love, but not in others (e.g., protest and anger). Other environments work just in reverse; they can respond to the infant who is protesting, needy, or upset, but do not read signals in areas of pleasure, joy, exploration, and curiosity. Clearly the most adaptive environments can read a range of signals and respond to them differentially (e.g., emotional hunger, physical hunger, protest and fussyness from discomfort, etc.). The adaptive environment, therefore, supports the early stages of development, that is, the infant's basic need for a calm, regulated internal state, and overall interest in the environment; maintains a meaningful, basically pleasurable, rich attachment; and facilitates differentiation along multiple developmental lines (cognitive, affective, interpersonal, etc.).

Disordered Environment for Somato-Psychological Differentiation

In contrast, the disordered environment does not engage the baby in a contingent or reciprocal manner, either because of an inability to read the baby's signals or inability to respond differentially. For example, if mother is depressed and unavailable for "reading" signals or responding, or projects her own needs onto the baby, therefore misreading the babys cues, or "reads" the baby, but stubbornly tries to control and manipulate the baby; or if the baby, either because of its own constitutional makeup or earlier developmental problems, is a "weak" sender unable to make its interests known (e.g., falls asleep when interested in being held or fed), development may be seriously delayed and a number of the symptoms outlined earlier may occur. Obviously no environment is perfectly contingent nor should this be expected. An infant must learn to accept delay and tolerate frustration in balance with support for his own maturational thrust toward differentiation.

Prevention and Treatment

An understanding of the structural capcity ordinarily expected at this stage of development may help us focus our prevention and intervention efforts. Regardless of the symptoms, if we observe a fundamental deficit in somatic psychological differentiation and can diagnose the contributing problems (i.e., in the environmental system, or in the makeup of the baby, or both), an approach is immediately suggested. For example, if homeostatic capacities and attachment patterns seem to be well established and yet there seems to be difficulty in the stage of somatic psychological differentiation, the effort can be aimed at strengthening the specific missing components that would lead to differentiation. If, let us say, the infant is passive and a weak sender, the mother, father or other family members can be taught to read these otherwise difficult signals and to work with the infant toward increasing the strength of the signals. For example, the infant who only puts his hand forth very slowly in order to make contact can initially be met by the mother thre fourths of the way. Slowly, by finding novel stimuli, she can encourage him to begin meeting her halfway. Similarly, through providing other satisfying experiences, she can gradually encourage the increased use of a number of communication modalities, affects, and behaviors.

If the difficulty is in the environment (e.g., with the primary caretakers--t mother who may be either misreading the baby, is depressed and not available, or is projecting her own needs onto the baby), the caretakers can be worked with in a psychotherapeutic and educative setting. If necessary, others can be encouraged to contribute toward providing the missing reciprocal interactions

(e.g., an older sibling). In working with the primary caretaker the developmental structuralist approach helps formulate specific goals. For example, the mother who tends to project her own feelings and therefore is suspicious and guarded, may continually misread her baby. Because she may read his press for emotional closeness as "his being angry at her," she may decide to "teach him a lesson" and "not spoil him." In a therapeutic relationship with such a mother, one may find that the mother quickly comes to feel that the therapist "is [also] angry at her." As the distortion in the relationship to the therapist is highlighted, the comment can be made that perhaps she also sees her baby as angry with her, particularly when his signals are ambiguous. Those situations in which she feels "attacked" by her baby may then be reviewed in detail.

In addition, techniques may be suggested to her for making her baby more comfortable. As she sees that she can calm her baby her own underlying feelings of helplessness and rage may diminish, and he may become less a target of her projecti than other individuals whom she cannot calm as effectively. Thus, her husband, the therapist, and others may still remain targets of paranoid fantasies, but the baby may be relatively free from malevolent projections. After a time, one would obviously hope that therapeutic progress would occur so that mother could relate to all the important persons in a less paranoid manner. Importantly, however, the developmental structuralist approach alerts us to those interactions with the baby which we might be able to modify quickly.

The Stage of Behavioral Organization, Initiative, and Internalization

As the stage of somato-psychological differentiation progresses there is greater behavioral and emotional organization, initiative and exploration (e.g., further use of detours, substitutes, delays and intermediary devices). Along with this, certain emotional systems become organized, e.g., attachment affiliation, fear and wariness, curiosity and exploratiVeness (Ainsworth 1974)(26). The infant's capacity to organize behavior into complex patterns and to take

initiative is enriched by, and in part further facilitates, an emerging capacity to internalize. For example, progressively more imitative behavior appears which in turn facilitates organized exploratory behavior from the secure base of the primary caregiver(s). The gradual individuation which occurs is perhaps best described in Mahler's account of the practicing subphase of the separation-individuation process (Mahler, Pine, and Bergman 1975).(28)

The capacity for creating new forms of behavior emerges from combining existing sensorimotor schemata (tertiary circular reactions [Piaget 1962](9)), trial-and-error explorations, and the organization of emerging mental imagery. There emerges a much greater sense of the toddler as an organized human being who initiates activities (e.g., pulling parent somewhere). There is also evidence for the beginning of a psychological sense of self (Lewis and Rosenblum 1974).(31)

Adaptive Patterns of Behavioral Organization, Initiative and Internalization

The optimal toddler is now able to enter into complex interpersonal communications. For example, the toddler and his parent can share a complicated exploratory game where he tells the parent to "chase me around the room," which the parent does. They go into another room. The toddler then ducks into a closet, and later doubles back to sneak up on the parent, laughs joyously, and jumps into the parent's arms with a hug and kiss. This complex, joyous activity involves exploration, anticipation, pleasure, etc. The angry toddler, similarly can be mischievous in a complex organized manner. He may leave his toys scattered around, arrange for himself or his parents to trip over things and pretend to be upset. Most importantly, under optimal circumstances we note that the toddler is capable of pleasure in a joyful manner, assertiveness, and expressions of protest and anger, all tied together in complex behavioral patterns. Where in the stage

of somato-psychological differentiation we might see one or two behaviors tied together in causal links (e.g., a child smiling, the parent smiling, the child returning a smile, or the child vocalizing reciprocally with the parent), now we can see (as in the chasing game) the stringing together of several related behaviors.

The toddler also begins demonstrating signs of integrating polarities of feelings, such as pleasure and anger. The optimal toddler is neither confined within solely obsequious, unassertive, seemingly passive states, nor is he polarized into chronic anger and irritable behavior, e.g., biting, poking, kicking things over, etc. Rather, he has the ability to organize both these polarities in a range of complex behaviors. He also shows the ability to respond to the organization of the environment, such as limit-setting.

Disorders in Behavioral Organization, Initiative and Internalization

Disorders at this stage may compromise the beginning of internal "psychological" life. Behavior remains fragmented, related to somatic or external cues. Intentionality and sense of self are blocked.

Specific disorders of this phase are evidenced by a wide range of problems. These can vary from a complete lack of imitation, intentionality, and organized emotional and behavior systems to circumscribed limitations in certain emotional or behavioral systems, e.g., the child cannot assert himself or has difficulties with affiliative behavior. Symptoms may include chronic temper tantrums, inability to initiate even some self-control, lack of motor or emotional co-ordination, extreme chronic negativism, delayed language development, and relationships characterized by chronic aggressive behavior.

A severe disorder at this phase affects the basic capacity for organizing behavior and forming the precursors for organized mental representations. One

can see the results of such a structural defect when adult patients enter into states of fragmentation (where their behavioral organization and internal representations are disorganized). A less severe disorder at this stage will be reflected in the narrowness of the range of experience organized, as seen in extreme character rigidities. An example is a child who can only experience very limited ranges of affects and behaviors and a rudimentary level of internal imagery. Such individuals are tied to concrete, immediate states of need fulfillment and are often locked into rigid narrow behavior patterns reflecting extreme affective and behavioral polarities (e.g., passive, compliant, or aggressive, negativistic). They may never form the intermediary warning and delay capacities of internal affects and imagery which are used for satisfaction and planning. Such individuals, we often observe, may later have a variety of difficulties, such as psychosomatic syndromes, substance abuse, and/or borderline and severe behavior disorders. The stability of their personality organization may also be limited, as evidenced by their sensitivity to a variety of stresses.

Symptoms at this stage are related to an inability to form organized behavioral patterns and can be clearly differentiated from symptoms emanating from earlier stages of development where the basic issues are quite different. Diagnosis depends on studying how successfully earlier developmental tasks were accomplished and then studying the current influences on the youngster's development. For example, a youngster capable of contingent responses, ready for more organized independent behavior, will become immensely frustrated with an over-controlling, intrusive, or overly symbiotic caretaker. Sleep disturbances, negativism, chronic aggression, or hyper-irritability and/or withdrawal may emerge as reactions to this frustration. In addition, if basic attachments and comfortin functions are secondarily disrupted, one may see homeostatic disorder In contrast, a youngster who never established homeostatic security and a broa

range of contingent responses may evidence a history of earlier structural compromises and more readily manifest symptoms involving gross developmental delays, and attachment and homeostatic disorders.

Adaptive Environments for Behavioral Organization, Initiative and Internalization

The adaptive environment during this stage of development is comfortable and unconflicted about admiring the toddler's new abilities and greater initiative and originality. It follows the youngster's lead, supporting his initiative and helping him organize one step further than he is able to on his own. The optimal caretaker not only admiringly enters into a game with the happily smiling toddler, but permits him to shift the game, and will help him reorganize if it becomes necessary. For example, they may begin looking at pictures together. The toddler then shifts to developing a game where they chase each other. As the youngster becomes somewhat disorganized or chaotic around the running, the adaptive caregiver may bring the youngster back to the point from which they started--looking at pictures in a book, helping the youngster name objects. The adaptive caretaker helps the youngster complete the circle.

The adaptive environment is not threatened by the ranges of affective expression from extreme pleasure to protest and assertiveness, but rather helps the youngster integrate those polarities into meaningful, organized, interpersonal responses. When the adaptive environment observes that the youngster is maintaining an organized negativistic or chronically aggressive pattern, it will try to identify those events or experiences that may be heightening the child's sense of frustration. Parents may notice, for example, that the stress caused by their own work concerns has made them emotionally unavailable to their child. This awareness can lead them to respond to the child's negativism and chronic aggression, not by scolding and punishment, but rather by attempting to shift the youngster's attention to more intimate pleasurable

activities. The youngster's realization that he can shift, escape this unpleasurable state, and reenter the more emotionally satisfying relationship to his parents helps him tie together his angry feelings with satisfying experiences.

Simple notions that the youngster's chronic anger will be reinforced if followed by relaxing experiences ignores the importance of providing integrating links for the youngster. At the same time, limit-setting is very important during this stage of development. Youngsters are experimenting with their aggressive behavior and if there does not appear to be a "good reason" for the youngster's upset state, firm limits in the context of a stable relationship pattern are quite appropriate. In dealing with aggressive behavior, the key issue is parental involvement and engagement rather than withdrawal and disgust.

The Disordered Environment for Behavioral Organization, Initiative and Internalization

In the disordered environment the primary caretakers may be conflicted about the toddler's new independence and originality, and worried about or anticipating "being ashamed" rather than being "admiring." They may be able to engage the infant only in fragmented units of interpersonal involvement as compared to complex, organized, long chains. For example, the mother is capable only of relatively brief and short causal exchanges, such as a smile in response to the toddler's smile. When the toddler tries to develop the reciprocal smiling into a pleasurable game by showing her some toys to arouse her interest in him, mother becomes distracted because of her own depression, preoccupation with other issues, or basic personality limitations. (She has never developed a capacity for more organized behavior.) Thus the toddler's desire to develop and consolidate these more organized patterns never receives reinforcement from the animate environment.

Some caretakers may intrude and control the child. Instead of developing initiative and autonomy in the context of organized patterns, the toddler finds that he is being undermined even when his play is curious, original, and should be mutually satisfying. Some youngsters give up, become apathetic and passive. Others try to retain their initiative, but choose the negative direction, organizing their behavior in highly original ways around a polarity of negativism and aggression. Yet others surrender investment in the human animate world, sacrificing development of complicated affective experiences, and instead develop complicated relationships to the inanimate world. (We see these reactions to the overcontrolled environment in some adults who neither have capacities for experiencing affects, nor the precursors of imagery that can be used for satisfaction and planning.) The disordered environment, therefore, is one which does not support the organization, initiative, or autonomy of behavior.

Prevention and Treatment

Where a youngster is not developing the organization, initiative, or capacity for internalization needed for forming a basis for later representational capacities and higher levels of emotional experience, several approaches are necessary. First, one must diagnose the environment. Is it undermining the youngster's organization (e.g., unavailable or fragmented environmental responses, overcontrolling and intrusive responses?) If any of these detrimental responses are operating, therapeutic approaches may be taken to correct the limitations in the primary caregivers. If necessary, an auxiliary support system may be created to implement the missing experiences. Thus, encouraging the involvement of other family members, as well as beginning a therapeutic relationship with the primary caretakers may be essential. Where the issues are not so much due to emotional problems, educative and modeling approaches may be useful, e.g., offering the parents games which, in a sense, teach them how to enter into organized behavioral patterns with their children. The parents, for example, can be taught running and chasing games, peeking game holding games, and talking games, all of which involve a variety of feelings.

It may be particularly difficult at this stage for parents if the child seems to be surpassing them in basic ability to organize complex behavior. Where this is the case a combined therapeutic and didactic approach can be most useful.

The youngster's contribution to a disorder must also be studied. Earlier difficulties may be emerging. The youngster who never had a secure attachment or who never formed differentiated causal relationships may now not be able to deal with complex environmental events. Where this is the case, the preventive and remedial approaches must go back and try to integrate earlier missing experiences with the specific experiences that are pertinent to this developmental stage. For example, a youngster who demonstrates difficulty not only with organizing his behavior and taking initiative, but who at the same time has only a shallow attachment to his primary caretakers, may require a program which includes a great deal of physical care, holding and soothing, with a primary focus on establishing trust and regularity. How do you woo this youngster? How do you get him interested in people? How do you develop his sense of expectancy in a secure way? At the same time from a strictly neurophysiologic and cognitive point of view, because this youngster may have matured into the second year of life, he will perceive and experience aspects of his world in a differentiated way. There needs to be holding, comforting, physical handling, rhythmic activities at the same time there is an attempt to develop new, more organized behavior. For example, if one were playing with such a youngster by chasing him around the room, and he hid in the closed and "surprised" you, you might pick him up to hug him and congratulate him for his initiative. It may be appropriate to try to prolong the period of satisfying affectionate holding at this point. One might also try to engage such a youngster for relatively longer periods of time in close

physical comfort while naming objects from a picture book (e.g., one would make a special effort to put one's arm around the youngster and offer physical tenderness and affection). The goal is to integrate the tasks of earlier developmental stages with the new tasks which are now on the ascendancy.

Summary and Discussion

We have presented a developmental structuralist approach to the classification of adaptive and pathologic personality patterns and behavior in infants and young children. In addition to providing a diagnostic scheme, the developmental structuralist approach provides a high-order construct tied to the level of integration rather than to single less stable, environmentally sensitive behavioral referents. Levels and patterns of integration incorporate the history and meaning that the organism has given to events and the way in which it has organized these meanings into stable, coherent patterns.

There may be special value in such an approach for longitudinal studies and for assessing outcome. For example, we may have a much likelier possibility of observing continuity in terms of level of adaptability than with specific referent behaviors. A youngster who shows highly flexible, adaptive structures early in life, with favorable environmental circumstances, may continue to show highly adaptive structures. The youngster who shows basically maladaptive structures (e.g., narrow, fragmented ranges of experience) may remain at these less adaptive levels. Specific patterns of behavior, however, may shift dramatically. The passive youngster may become more aggressive; an aggressive youngster may become more passive; an introverted youngster may become extroverted and vice versa. Nevertheless, the passively oriented youngster who can integrate emotional polarities may remain relatively adaptive. The assertive youngster who cannot integrate polarities, who can deal only with the aggressive spectrum of behavior, may remain relatively maladaptive (however much he appears to be

a leader with "competence").

Similarly, in assessing outcome, the developmental structuralist approach affords a model that provides the "baseline" functioning of the personality, the context in which we can look for more specific symptomatic behavioral changes. In general medicine, if we look at a new medication or drug designed to cure an infection, we use baseline measures of overall physical functioning (e.g., liver, blood, respiratory functioning, etc.) to make sure we do not "cure" the infection at the expense of other important bodily functions. In our approach to outcome for intervention for infants, children or adults, we have not yet reached the point where we have an adequate series of baseline measures to assess overall functioning. We therefore tend to ignore the behavioral and emotional "side effects" and often look only for physical side effects. When we offer a behavioral or pharmacologic approach to a youngster, we ought to know what this will do to his overall level of adaptation. Some approaches may cure the symptom but restrict the youngster's capacity for experiencing certain feelings, e.g., narrow the range of compassionate feelings or intimacy in interpersonal relationships. Some mechanical or charismatic therapies, for example, which may cure symptoms and lead to a feeling of "well being," may increase certain narcissistic limitations. The developmental structuralist approach affords us a way of looking at the basic context (the stage, so to speak) for the specific developmental drama. Table 1 summarizes in schematic form the developmental structuralist approach.

(Table 1 about here)

Table 1

Developmental Structural Delineation of Stage-Specific Tasks and Capacities	Illustrative Adaptive Capacities	Illustrative Maladaptive (Pathologic) Capacities	Adaptive Environment	Maladaptive Environment
Homeostasis (0-3 months)	Internal regulation (harmony) and balanced interest in the world	Unregulated (e.g., hyperexcitable), withdrawn (apathetic)	Invested, dedicated, protective, comforting, predictable, engaging and interesting	Unavailable, chaotic, dangerous, abusive; hypo- or hyper-stimulating; dull
Attachment (2-7 months)	Rich, deep, multisensory emotional investment in animate world (especially with primary caregivers)	Total lack of, or non-affective, shallow, impersonal involvement (e.g., autistic patterns) in animate world	In love, and woos infant to "fall in love"; affective multimodality pleasurable involvement	Emotionally distant, aloof, and/or impersonal (highly ambivalent)
Somato-Psychological Differentiation (3-10 months)	Flexible, wide-ranging affective multisystem contingent (reciprocal) interactions (especially with primary caregivers)	Behavior and affects random and/or chaotic, or narrow, rigid, and stereotyped	Reads and responds contingently to infant's communications across multiple sensory and affective systems	Ignores or misreads (e.g., projection) infant's communications (e.g., the overly intrusive, preoccupied, or depressed caretaker)
Behavioral Organization, Initiative, and Internalization (9-24 months)	Complex, organized, assertive, innovative, integrated behavioral and emotional patterns	Fragmented, stereotyped and polarized behavior and emotions (e.g., withdrawn, compliant, hyperaggressive, or disorganized toddler)	Admiring of toddler's initiative & autonomy, yet available, tolerant and firm; follows toddler's lead and helps him organize diverse behavioral and affective elements	Overly intrusive, controlling; fragmented, fearful (especially of toddler's autonomy); abruptly and prematurely "separates"
Representational Capacity, Differentiation, and Consolidation (1½-4 years)	Formation and elaboration of internal representations (imagery) Organization and Differentiation of imagery pertaining to self and nonself; emergence of cognitive insight Stabilization of mood and gradual emergence of basic personality functions	No representational (symbolic) elaboration; behavior and affect concrete, shallow and polarized; sense of self and "other" fragmented, undifferentiated or narrow and rigid; reality testing, impulse regulation, mood stabilization compromised or vulnerable (e.g., borderline psychotic and severe character problems)	Emotionally available to phase-appropriate regressions and dependency needs; reads, responds to, and encourages symbolic elaboration across emotional and behavioral domains (e.g., love, pleasure, assertion) while fostering gradual reality orientation and internalization of limits	Fearful of, or denies phase-appropriate needs; engages child only in concrete (nonsymbolic) modes generally or in certain realms (e.g., around pleasure), and/or misreads or responds noncontingently or nonrealistically to emerging communications (i.e., undermines reality orientation); overly permissive or punitive
Capacity for Limited Extended Representational Systems and Multiple Extended Representational Systems (Middle childhood through adolescence)	Enhanced and eventually optimal flexibility to conserve and transform complex and organized representations of experience in the context of expanded relationship patterns and phase-expected developmental tasks	Derivative representational capacities limited or defective, as are latency and adolescent relationships and coping capacities	Supports more complex, phase and age appropriate experiential and interpersonal development (i.e., into triangular and post-triangular patterns)	Conflicted over child's age-appropriate propensities (e.g., competitiveness, pleasure orientation, growing competence, assertiveness, and self-sufficiency); becomes aloof or maintains symbiotic tie; withdraws from, or over-engages in competitive or pleasurable strivings

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